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AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Previously presented) A system for correcting approximate expressions used in geometrical correction of projected images, said system comprising:

a projector which operates under a control of a program,

wherein said projector comprises means for performing a geometrical transformation on a projected image emitted from said projector in accordance with a shape of a projection surface of a screen, using a predetermined approximate expression to correct the projected image for distortion and a value entered for substitution into at least one of a variable and a parameter to transform said predetermined approximate expression.

2. (Presently amended) The system for correcting approximate expressions used in geometrical correction of projected images according to claim 1, wherein said projector comprises:

input means for entering the value for substitution into at least one of a variable and a parameter to transform the approximate expression;

calculating means for calculating numerical values for transformation using the entered value and the approximate expression previously held in said projector;

image processing means for transforming the projected image emitted from said projector based on a result of the calculation made by said calculating means; and

optical output means for projecting the image transformed by said image processing means.

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3. (Currently amended) A system for correcting approximate expressions used in

geometrical correction of projected images, said system comprising:

     a computer which operates under a control of a program; and

     a projector, wherein:

     said computer comprises calculating means for calculating numerical values for

transformation of ~~the~~ a projected image emitted from said projector from a predetermined

approximate expression to correct the projected image for distortion and at least one value

entered for substitution into at least one of a variable and a parameter for transforming the

approximate expression, and

     said projector comprises image processing means for receiving the numerical values

for transformation of the projected image calculated by said computer to transform the

projected image, and optical output means for projecting the image transformed by said

image processing means onto a screen.

4. (Previously presented) The system for correcting approximate expressions used in

geometrical correction of projected images according to claim 1, wherein said screen

comprises a cylindrical or a spherical projection surface, and said approximate expression

comprises an equation representative of a parabola.

5. (Previously presented) The system for correcting approximate expressions used in

geometrical correction of projected images according to claim 2, wherein said screen

comprises a cylindrical or spherical projection surface, and said approximate expression

comprises an equation representative of a parabola.

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6. (Previously presented) The system for correcting approximate expressions used in geometrical correction of projected images according to claim 3, wherein said screen comprises a cylindrical or spherical projection surface, and said approximate expression comprises an equation representative of a parabola.

7. (Previously presented) The system for correcting approximate expressions used in geometrical correction of projected images according to claim 1, wherein said screen comprises a projection surface composed of walls with a corner between both walls, and said approximate expression comprises a linear equation for correcting the corner between said walls.

8. (Previously presented) The system for correcting approximate expressions used in geometrical correction of projected images according to claim 2, wherein said screen comprises a projection surface composed of walls with a corner between both walls, and said approximate expression comprises a linear equation for correcting the corner between said walls.

9. (Previously presented) The system for correcting approximate expressions used in geometrical correction of projected images according to claim 3, wherein said screen comprises a projection surface comprised of walls with a corner between both walls, and said approximate expression comprises a linear equation for correcting the corner between said walls.

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10. (Previously presented) The system for correcting approximate expressions used in geometrical correction of projected images according to claim 1, wherein said screen comprises a sinusoidally waved projection surface, and said approximate expression comprises an equation representative of a trigonometric function.

11. (Previously presented) The system for correcting approximate expressions used in geometrical correction of projected images according to claim 2, wherein said screen comprises a sinusoidally waved projection surface, and said approximate expression comprises an equation representative of a trigonometric function.

12. (Previously presented) The system for correcting approximate expressions used in geometrical correction of projected images according to claim 3, wherein said screen comprises a sinusoidally waved projection surface, and said approximate expression comprises an equation representative of a trigonometric function.

13. (Previously presented) A projector comprising:

      a storage device that stores a predetermined approximate expression for correcting a projected image for distortion; and

      a calculator that performs a geometrical transformation for said projected image emitted from said projector, in accordance with said predetermined approximate expression.

14. (Previously presented) The projector according to claim 13, further comprising:

      a receiver to receive a value for substitution as one of a parameter and a variable into

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said predetermined approximate expression.

15. (Previously presented) The projector according to claim 14, wherein said value comprises a value entered by a user using an input device.

16. (Previously presented) The projector according to claim 15, wherein said value entered by said user comprises a numerical value entered through said input device.

17. (Previously presented) The projector according to claim 15, wherein said input device comprises a slide bar through which said user interacts to enter said value.

18. (Previously presented) The projector according to claim 17, wherein said slide bar comprises a slide bar located on one of:

    said projector; and

    a graphical user interface (GUI) associated with a display device for said projector.

19. (Previously presented) The projector according to claim 15, wherein said input device comprises a graphical user interface (GUI) associated with a display device used for said projector.

20. (Previously presented) The projector according to claim 13, wherein said predetermined approximate expression comprises one of an expression representative of:

    a parabola;

a linear equation; and

a trigonometric function.

21. (Previously presented) A method of projecting an image, said method comprising:

receiving a value in a projection system used to project an image onto one or more

display surfaces, said value to be used for substitution into at least one of a variable and a

parameter for correcting an approximate expression used in geometrical correction of said

projected image.

22. (Previously presented) The method of claim 21, wherein said receiving of said value

occurs via one of an input device comprising a graphical user interface (GUI) associated with

a display device used for said projection system and an input device located on a component

of said projection system.

23. (Previously presented) A method for projecting an image, said method comprising:

receiving at least one value in a computer which operates under a control of a

program and provides projection data to a projector, said computer comprising calculating

means for calculating numerical values for transformation of a projected image emitted from

said projector from a predetermined approximate expression to correct the projected image

for distortion, said at least one value entered for substitution into at least one of a variable and

a parameter for transforming the approximate expression;

receiving the numerical values for transformation of the projected image calculated by

said computer to transform the projected image; and

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    projecting the image having been transformed onto at least one display surface.